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January 5, 2016

Constance C. Holland, AICP
State of Delaware
Planning and Coordination
Haslet Armory- Third Floor
122 William Penn Street
Dover, DE 19901

RE: **PLUS 2016-08-08 Response Letter**
CAESAR RODNEY SCHOOL DISTRICT / ELEMENTARY SCHOOL
Kent County, Delaware
2014117.00

Dear Ms. Holland:

Below is the required response to your PLUS comment letter dated September 22, 2016 in reference to the Caesar Rodney School District site plan for a proposed elementary school to be located near the intersection of Banning Road and Briarbush Road in Kent County. Each state comment below is followed by our response in italics.

Strategies for State Policies and Spending

This project is located in Investment Level 1 according to the Strategies for State Policies and Spending. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy. Thus, the Office of State Planning Coordination has no objections to this proposed site.

Code Requirements/Agency Permitting Requirements

Delaware Department of Transportation - Contact Bill Brockenbrough 760-2109

- The site access on Briarbush Road (Kent Road 367) and the planned Mildred Grace Avenue must be designed in accordance with DelDOT's Development Coordination Manual. A copy of the Manual is available at <http://www.deldot.sov/informatior/business/subdivisions/chanees/index.shtml>.

BMG Response: Acknowledged.

- Pursuant to Section P.3 of the Manual, a Pre-Submittal Meeting is recommended before plans are submitted for review. The form needed to request this meeting and guidance on what will be covered there and how to prepare for it is located at: <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>

BMG Response: Acknowledged.

- Section P.5 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.

BMG Response: Acknowledged.

- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, we see that the total daily trips are estimated at 774 vehicle trip ends per day. Based on that traffic volume, a TIS is warranted for this development.

BMG Response: Our position is that the 2005 TIS conducted for the previously planned development contains all the necessary information necessary to determine the impacts and action resulting from this new proposal. Therefore we do not believe a new TIS would bring any additional value to our client or the State and therefore believe a new TIS is unwarranted. Analysis of existing information under the newly proposed condition of an elementary school is appropriate.

- However, for developments generating less than 2,000 vehicle trip ends per day and less than 200 vehicle trip ends per hour, if the local government does not require a TIS, Section 2.2.2.2 of the Manual provides that DelDOT may accept an Area Wide Study Fee, calculated by multiplying the daily trip generation by \$10, in lieu of requiring a TIS.

BMG Response: Acknowledged.

- An Area Wide Study Fee, when accepted, is set aside for use in funding future traffic studies in the same county as the subject development. Payment of the Fee does not relieve the payer of responsibility for off-site improvements where DelDOT has identified a need for improvements.

BMG Response: Acknowledged.

- The proposed school site would consist of 61 recorded lots and part of the street system and open space in the recorded Barrett Farm subdivision. DelDOT's review of a 2005 TIS for this development identified several off-site improvements needed to support the subdivision that, in our opinion, would also be needed to support the school. A copy of our comments on the TIS is attached. Specific off-site improvements we would anticipate requiring of the school district, unless they are made first by others, include the following:
 - Improvement of Banning Road from Briarbush Road to the eastern edge of the Barrett Farm property to meet DelDOT local road standards as nearly as possible within the available right-of-way. These improvements include two 11-foot travel lanes and two 5-foot shoulders.
 - An overlay of Banning Road from the eastern edge of the Barrett Farm property to South State Street

- Improvement of Briarbush Road from Banning Road to the north limit of the site frontage to meet DelDOT local road standards as nearly as possible within the available right-of-way. These improvements include two 11-foot travel lanes and two 5-foot shoulders.
- Entering into a signal agreement with DelDOT for the intersection of South State Street and Banning Road.

We would also want to discuss with the school district the possibility of widening Banning Road between the Barrett Farm Property and South State Street by some amount to better accommodate two-way school bus traffic but we recognize that the residential strip development along this section of the road has likely made it difficult to provide five-foot shoulders.

BMG Response: Acknowledged.

- Per Section 2.3.2 of the Manual, DelDOT may require a Traffic Operational Analysis (TOA) for any development generating 200 or more vehicle trip ends per day. From the PLUS application, we see that the total daily trips are estimated at 774 vehicle trip ends per day. While DelDOT does not presently foresee the need for a separate TOA given the 2005 TIS mentioned above, we do anticipate requiring the school district to revisit the design of intersection of Banning Road, Country Field Drive and the planned Mildred Grace Avenue as part of the plan review process. The entrance to Barrett Farm was designed, to the extent that plans were developed, to accommodate exclusively residential traffic. The proposed school would increase the daily traffic by about 150 vehicle trip ends per day over what was previously contemplated and would significantly increase the number of trips entering and exiting during the weekday morning peak hour.

BMG Response: We agree that a TOA is not needed given the 2005 TIS. The school entrance will be designed to accommodate school traffic including busses.

- Section 3.2.4.2 of the Manual addresses the placement of right-of-way monuments (markers) along the roads on which a property fronts, in this case Briarbush Road and Banning Road. Monuments sufficient to re-establish the permanent rights-of-way after the dedication discussed below should be shown on the plan and provided in the field in accordance with this section.

BMG Response: Acknowledged.

- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Manual, DelDOT will require dedication of right-of-way along the site's frontage on Briarbush Road and Banning Road. By this regulation, this dedication is to provide a minimum of 30 feet of right-of-way from the road centerline on both roads. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**

BMG Response: Acknowledged.

- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Briarbush Road and Banning Road. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as

part of the open space calculation for the site. The following note is required, "**A 15-foot wide permanent easement is hereby established to the State of Delaware, as per this plat.**"

BMG Response: Acknowledged.

- In accordance with Section 3.4 of the Manual, a record plan shall be prepared prior to issuing "Letter of No Objection". The following information will be required for the "Letter of No Objection" review:
 - Initial Stage Fee Calculation Form
 - Initial Stage Review Fee
 - Gate-Keeping Checklist - Site Plan
 - Design Checklist - Record Plan
 - Sight Distance Spreadsheet
 - Owners and Engineers' name and e-mail address
 - Record Plan
 - Conceptual Entrance Plan
 - Submission of the Area-Wide Study Fee (If applicable)

BMG Response: Acknowledged.

- Referring to Section 3.4.2.1 of the Manual, the following items, among other things, are required on the Record Plan:
 - A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.
 - All adjacent existing features are required to be shown in accordance with Figure 3.4.2-b.
 - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.

BMG Response: Acknowledged.

- Section 3.5 of the Manual provides DelDOT's requirements with regard to connectivity. The requirements in Sections 3.5.1 through 3.5.3 shall be followed for all development projects having access to state roads or proposing DelDOT maintained public streets for subdivisions.

BMG Response: Acknowledged.

- Section 3.5.4.2 of the Development Coordination Manual addresses requirements for shared-use paths and sidewalks. Projects located in Level 1 and 2 Investment Areas are required to install a shared-use path or sidewalk along the State-maintained road frontage. The Subdivision Engineer may waive the requirement where a physical impossibility exists. No such impossibility is evident in this instance. As part of this construction we would expect the school district to provide crosswalks and curb ramps as needed to cross Mildred Grace Avenue at their access points and to cross Banning Road at the intersection of Mildred Grace Avenue and Country Fields Road if these facilities have not been built first by others, i.e. a developer of Barrett Farm.

BMG Response: Acknowledged.

- Consistent with Section 3.5.5 of the Manual, any existing or proposed transit stops shall be shown on the Record Plan with applicable bicycle and pedestrian connectivity.

BMG Response: Acknowledged.

- In accordance with Section 3.8 of the Development Coordination Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along Briarbush Road and Banning Road.

BMG Response: Acknowledged.

- Referring to Section 4.3 of the Manual, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Entrance Plan review:
 - Construction Stage Fee Calculation Form
 - Construction Review Fee
 - Gate-Keeping Checklist - Entrance Plan
 - Design Checklist - Entrance Plan
 - Auxiliary Lane Spreadsheet
 - Entrance Plan
 - Pipe/Angle Spreadsheet (If applicable)
 - SWM Report and Calculations (If applicable)

BMG Response: Acknowledged.

- In accordance with Section 5.2.5.6 of the Manual, a separate turning template plan shall be provided to verify vehicles can safely enter and exit the site entrance. As per Section 5.2.3 of the Manual, the entrance shall be designed for the largest vehicle using the entrance.

BMG Response: Acknowledged.

- In accordance with Section 5.2.9 of the Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrance and how long those lanes should be. The worksheet can be found at http://www.deldot.eoviinformation/business/subdivisions/auxiliary_lane_worksheet.xls. Application of the Worksheet has shown that a left turn lane entering the site is warranted. Given the existing roadway configuration and project location the requirement for a left turn lane has been waived.

BMG Response: Acknowledged.

- In accordance with Section 5.4 of the Manual, sight distance triangles are required and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at <http://www.deldot.eov/information/business/subdivisions/Intersection-Sight-Distance.xls>

BMG Response: Acknowledged.

- In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.

BMG Response: Acknowledged.

- Because the proposed development would not have State-maintained streets, Section 6.4.3 of the Manual, which pertains to the inspection and acceptance of commercial entrances, applies. Construction inspection responsibilities shall be in accordance with Figure 6.4.3-a.

BMG Response: Acknowledged.

- Section 7.7.2 of the Manual addresses the need to provide 20-foot wide drainage easements for all storm drainage systems, open or closed, that fall outside the existing right-of-way or the drainage/utility easement. In accordance with this section, metes and bounds and total areas need to be shown for any drainage easements. The easements should be shown and noted on the record plan.

BMG Response: Acknowledged.

Department of Natural Resources and Environmental Control - Contact Michael Tholstrup 735-3352

Executive Summary.

Upon reviewing the Caesar Rodney School District project, DNREC has identified that the proposed project is located in an appropriate site with few environmental concerns. Opportunities still exist to reduce the environmental impact and provide additional energy efficiency alternatives on-site.

The proposed development will result in increased impervious surface and new sources of greenhouse gas emissions. The State of Delaware is threatened by climate change and has a goal of reducing greenhouse gas emissions by 30 percent by 2030. Appropriate development and redevelopment that provides access to public transportation, opportunities to walk and bike to schools, and that employs energy efficient building standards are among key strategies to meet these goals. We encourage the use of high performance building standards and consideration of alternative energy sources to promote clean sustainable energy and reduce greenhouse gas emissions. This could mean siting buildings to take advantage of solar and geothermal systems, and/or including infrastructure for electric vehicle charging stations. We further recommend an abundant use of native vegetation and shade trees throughout the landscape, as well as pervious pavement and green infrastructure, where practicable, to absorb carbon dioxide, protect water quality and provide relief to residents on hot days.

The following pages provide information about applicable regulations and detailed recommendations associated with this project, from various DNREC Divisions. We would like to be a partner in creating appropriate development that protects and

highlights the environment as a natural amenity of the landscape. The Department has resources and expertise that are available to help make this a reality.

TMDLs.

- The project is located in the greater Delaware River and Bay drainage area, specifically within the St. Jones River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). The TMDL for the St. Jones River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 90 percent reduction in bacteria from baseline conditions. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited waterbody" can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting.

BMG Response: We will meet the required stormwater regulations.

Water Supply.

- The information provided indicates that Tidewater Utilities will be used to provide water to the proposed project through a central water system. However, our records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 03-CPCN-10. We recommend that the developer contact Artesian Water Company to determine the availability of public water. Any public water utility providing water to the site must obtain a Certificate of Public Convenience and Necessity (CPCN) from the Public Service Commission. Information on CPCN's and the application process can be obtained by contacting the Public Service Commission at (302) 736-7500.

BMG Response: We acknowledge that Artesian Water Company is the correct service provider for this project.

- Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

BMG Response: Acknowledged.

- All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications take approximately four weeks to process, which allows the necessary time for technical review and advertising. Should you have any questions concerning these comments, please contact Rick Rios, at (302) 739-9944.

BMG Response: Acknowledged.

Sediment and Erosion Control/Stormwater Management.

- A detailed Sediment and Stormwater Management Plan must be approved prior to beginning construction. The plan must comply with the current Delaware Sediment and Stormwater Regulations.

BMG Response: Acknowledged.

- A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted along with NOI fee to DNREC Division of Watershed Stewardship prior to Sediment and Stormwater Plan approval. Once the construction activity is complete, as-builts have been approved, and final stabilization is established on the site, a Notice of Termination (NOT) may be submitted to terminate permit coverage for the construction activity.

BMG Response: Acknowledged.

- Initially, a Stormwater Assessment Study (SAS) must be completed for the project site and submitted to DNREC Sediment and Stormwater Program. Once a complete SAS has been submitted, a project application meeting will be scheduled. At the project application meeting the methods for compliance with the Sediment and Stormwater Regulations will be discussed and submittal requirements, analysis points, and BMPs to pursue will be agreed upon.

BMG Response: Acknowledged.

Air Quality.

- The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 2 - Potential Regulatory Requirements may apply to your project:

Table 2: Potential Regulatory Requirements Regulation Requirements

Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> • Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. • Use covers on trucks that transport material to and from site to prevent visible emissions.
7 DE Admin. Code 1113 - Open Burning	<ul style="list-style-type: none"> • Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year. • Prohibit the burning of land clearing debris. • Prohibit the burning of trash or building materials/debris
7 DE Admin. Code 1135 - Conformity of General Federal Actions to the State Implementation Plan	<ul style="list-style-type: none"> • Require, for any "federal action," a conformity determination for each pollutant where the total of direct and indirect emissions would equal or exceed

	any of the de minimus levels (See Section 3.2.1)
7 DE Admin. Code 1141 - Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	<ul style="list-style-type: none"> • Use structural/paint coatings that are low in Volatile Organic Compounds. • Use covers on paint containers when paint containers are not in use.
7 DE Admin. Code 1144 - Control of Stationary Generator Emissions	<ul style="list-style-type: none"> • Ensure that emissions of nitrogen oxides (NO_x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), and carbon dioxide (CO₂) from emergency generators meet the emissions limits established. (See section 3.2). • Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 - Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> • Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

For a complete listing of all Delaware applicable regulations, please look at our website <http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

BMG Response: Acknowledged.

Hazardous Waste.

- If it is determined by the Department that there was a release of a hazardous substance on the property in question and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 Del.C., Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.

BMG Response: Acknowledged.

Tank Management.

- If a release of a Regulated Substance occurs at the proposed project site, compliance with 7 Del.C., Chapter 60; 7 Del.C., Chapter 14; and DE Admin. Code 1351, State of Delaware Regulations Governing Underground Storage Tank Systems (the UST Regulations) is required.

BMG Response: Acknowledged.

- No environmental impacts are anticipated; however, per the UST Regulations: Part E, § 1. Reporting Requirements: Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:
 - The Department's 24-hour Release Hot Line by calling (800) 662-8802; and
 - The DNREC Tank Management Section by calling (302) 395-2500.

BMG Response: Acknowledged.

State Historic Preservation Office - Contact Terrence Burns 736-7404

- There is a known house and/or dwelling (K-3361) on the parcel towards Briarbush Road. If any development or project proceeds, the developer should be aware of the Unmarked Human Burials and Skeletal Remains Law, in Chapter 54, of Title 7, of the Delaware Code.

Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (7 Del. C. Ch. 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information pertaining to unmarked human remains or cemeteries, please go to the following websites for additional information:

www.history.delaware.gov/preservation/umhr.shtml and
www.history.delaware.gov/preservation/cemeteries.shtml.

Therefore, prior to any demolition or ground-disturbing activities, the developer should hire an archaeological consultant, to examine the parcel for archaeological resources and plan to avoid those areas. The developer should include sufficient landscaping or barrier between the house (K-3361) and development, in order to protect the house, from adverse noise and visual effects.

BMG Response: Acknowledged.

- If there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory

Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov.

BMG Response: Acknowledged.

Recommendations/Additional Information

This section includes a list of site specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped (**but in no way required**) that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.

Delaware Department of Transportation - Contact Bill Brockenbrough 760-2109

- The applicant should expect a requirement that any substation and/or wastewater facilities will be required to have access from an internal driveway with no direct access to Briarbush Road or Banning Road.

BMG Response: Acknowledged.

- The applicant should expect a requirement that all PLUS and Development Advisory Committee (DAC) comments be addressed prior to submitting plans for review.

BMG Response: We will comply with all code requirements.

- Please be advised that DelDOT adopted an update of the Development Coordination Manual effective April 11, 2016. While in most respects, the changes are incremental, they are located throughout the Manual and could have some effect on the entrance designs.

BMG Response: Acknowledged.

- Please be advised that as of August 1, 2015, all new plan submittals and re-submittals, including major, minor and commercial plans, shall now be uploaded via the PDCA (Planning Development Coordination Application) with any review fee paid online via credit card or electronic check. Guidance on how to do this is available on our website at <http://www.deldot.gov/information/business/subdivisions/>

BMG Response: Acknowledged.

- Be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision date of July 20, 2016. The notes can be found at http://www.deldot.gov/information/business/subdivisions/Sheet_Notes.doc?052316.

BMG Response: Acknowledged.

Department of Natural Resources and Environmental Control - Contact Michael Tholstrup 735-3352

Soils Assessment.

- Based on soils survey mapping update, the named soils mapping units mapped on subject parcel are Sassafras (SaA, SaB, & SfB) and Downer (DoA). Both of these soil mapping units are well-drained and, generally, have few limitations for development.

BMG Response: Acknowledged.

- A Pollution Control Strategy (PCS) to achieve the required TMDL nutrient and bacterial load reduction requirements has been established for the St. Jones watershed. The web link for the St. Jones PCS strategies is as follows:

<http://www.dnrec.delaware.gov/swc/walPages/WatershedManagementPlans.aspx>

BMG Response: Acknowledged.

- In support of the PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended BMPs:
 - Preserve and/or maintain as much of the existing open space as possible; we further suggest additional native tree, shrub and/or native herbaceous vegetation plantings, wherever possible
 - Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, ponds, and roads) included in the calculation. Omission of any of the above-stated forms of surface imperviousness will result in an underestimate of the actual post-development surface imperviousness and the associated environmental impacts.
 - Employ green-technology storm water management and a rain gardens (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff. Please contact Lara Allison at (302) 739-9939 for further information about the possibility for installing rain gardens on this parcel.
 - Use pervious paving materials (when compatible with concerns for the protection of excellent recharge areas and/or well-head protection areas via assessment by a DNREC hydrogeologist) instead of conventional paving materials, like asphalt or concrete. This serves to reduce the amount of water and pollutant runoff draining to adjoining streams and wetlands. Pervious pavers are especially recommended for areas designated for parking.
 - Assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the "Nutrient Load Assessment

protocol." The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) resulting from the conversion of individual or combined land parcels to a changed land use; thus providing applicants and governmental entities with quantitative information about the project's impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to help design and implement the most effective BMPs. Please contact John Martin or Jen Walls in the Division of Watershed Stewardship, at (302) 739-9939, for more information on the protocol.

BMG Response: We will endeavor to include these design elements to the highest extent possible at the direction of our client.

Additional information on tank management.

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

BMG Response: Acknowledged.

- If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

BMG Response: Acknowledged.

- The Tank Management Section encourages the use of BMPs in considering all environmental effects of activities and implementation and incorporating options to minimize the environmental footprints of activities.

BMG Response: Acknowledged.

- For more information, please visit online:
<http://www.dnrec.delaware.gov/tanks/Pages/default.aspx> or contact Ross D. Elliott at DNREC-TMS with further questions at (302) 395-2500, or
Ross.Elliott@state.de.us

Additional information on hazardous waste sites.

- DNREC strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.

BMG Response: Acknowledged.

- Additional remediation may be required if the project property or site is re-zoned by the county.

BMG Response: Acknowledged.

- Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil),

construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800) 662-8802. SIRS should also be contacted as soon as possible at (302) 395-2600 for further instructions.

BMG Response: Acknowledged.

Additional information on air quality.

- DNREC is pleased to see proposed sidewalks and bike paths in the plan. There is an opportunity to connect these sidewalks and bike paths to a larger bicycle and pedestrian network. We encourage the applicant to pursue partnerships that would help create such a pedestrian and bicycle path network. Safe walking and biking paths can encourage both children and adults to get out of their cars and be more active which has significant health benefits for the community. Reducing dependency on vehicular travel also reduces vehicle miles traveled which benefits air pollution and greenhouse gas emissions.

BMG Response: Acknowledged.

- DNREC encourages developers and builders to consider all sustainable growth practices in their design, and we believe that the air quality impacts associated with the project should be completely considered. New homes and businesses may emit, or cause to be emitted, additional air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
 - Emissions that form ozone and fine particulate matter;
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.

BMG Response: Acknowledged.

- Air emissions generated from new homes and businesses include emissions from the following activities:
 - Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
 - The generation of electricity, and
 - All transportation activity.

BMG Response: Acknowledged.

- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) were quantified. Table 2 - Projected Air Quality Emissions represents the actual impact the New Caesar Rodney Elementary School may have on air quality.

Table 2: Projected Air Quality Emissions for New Caesar Rodney Elementary School (Based on projected estimate of 774 trips during peak season)

Emissions Attributable to New CR ES (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO _x)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Mobile Emissions	2.570841	3.39012	*	*	*

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the apartment community, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

BMG Response: Acknowledged.

- DNREC encourages sustainable growth practices that:
 - Control sprawl;
 - Preserve rural and forested areas;
 - Identify conflicting land use priorities;
 - Encourage growth on previously developed sites and denser communities while at the same time protect our diminishing land base;
 - Coordinate transportation, housing, environment, and climate protection plans with land use plans; and
 - Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.

BMG Response: Acknowledged.

- Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:
 - **Constructing with only energy efficient products.** Energy Star qualified products are up to 30 percent more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution.
 - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.
 - **Constructing with high albedo, high solar reflectance materials.** This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized

ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.

- **Providing shade for parking areas.** Approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. Such measures can also have the additional benefit of channeling or infiltrating stormwater.
- **Providing charging stations for plug-in electric vehicles.** This measure helps to reduce localized air pollution by supporting the use of non-gasoline powered vehicles. Please refer to the US Department of Energy's website for electric vehicle readiness information:
http://www.eere.energy.gov/cleancities/electric_vehicle_projects.html
Several charging stations exist nearby in Millsboro, Lewes, and Rehoboth Beach.
- **Encouraging the use of safe multimodal transportation.** This measure can significantly reduce mobile source emissions. For every vehicle trip that is replaced by the use of a sidewalk or bike path, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.
- **Planting trees in vegetative buffer areas.** Native trees reduce emissions by trapping dust particles and replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

BMG Response: We believe the items suggested above are all elements of good design. As such we will seek to incorporate these design elements to the highest degree possible at the direction of our client.

- This is a partial list, and there are additional things that can be done to reduce the impact of the development. The applicant should contact the DNREC Division of Air Quality (DAQ) to discuss the above listed measures, and the specific emission mitigation measures that can be incorporated into the New Caesar Rodney Elementary School project. The DAQ point of contact is Lauren DeVore, and she may be reached at (302) 739-9437 or lauren.devore@state.de.us.

BMG Response: Acknowledged.

Department of Education James Penewell 857 -3392

- The DOE will continue to work with the district, architect, site engineer, municipal government and various state agencies regarding the project. The DOE reserves the right to provide continued and on-going comments and input as the project develops.

BMG Response: Acknowledged.



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If you should have any further questions regarding this matter please feel free to contact me at (302) 734-7950.

Sincerely,

BECKER MORGAN GROUP, INC.

A handwritten signature in blue ink, appearing to read "Gregory V. Moore".

Gregory V. Moore, P.E.
Vice President

CJW/rlh

CC: Ken Starke

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